

AUTHOR INDEX

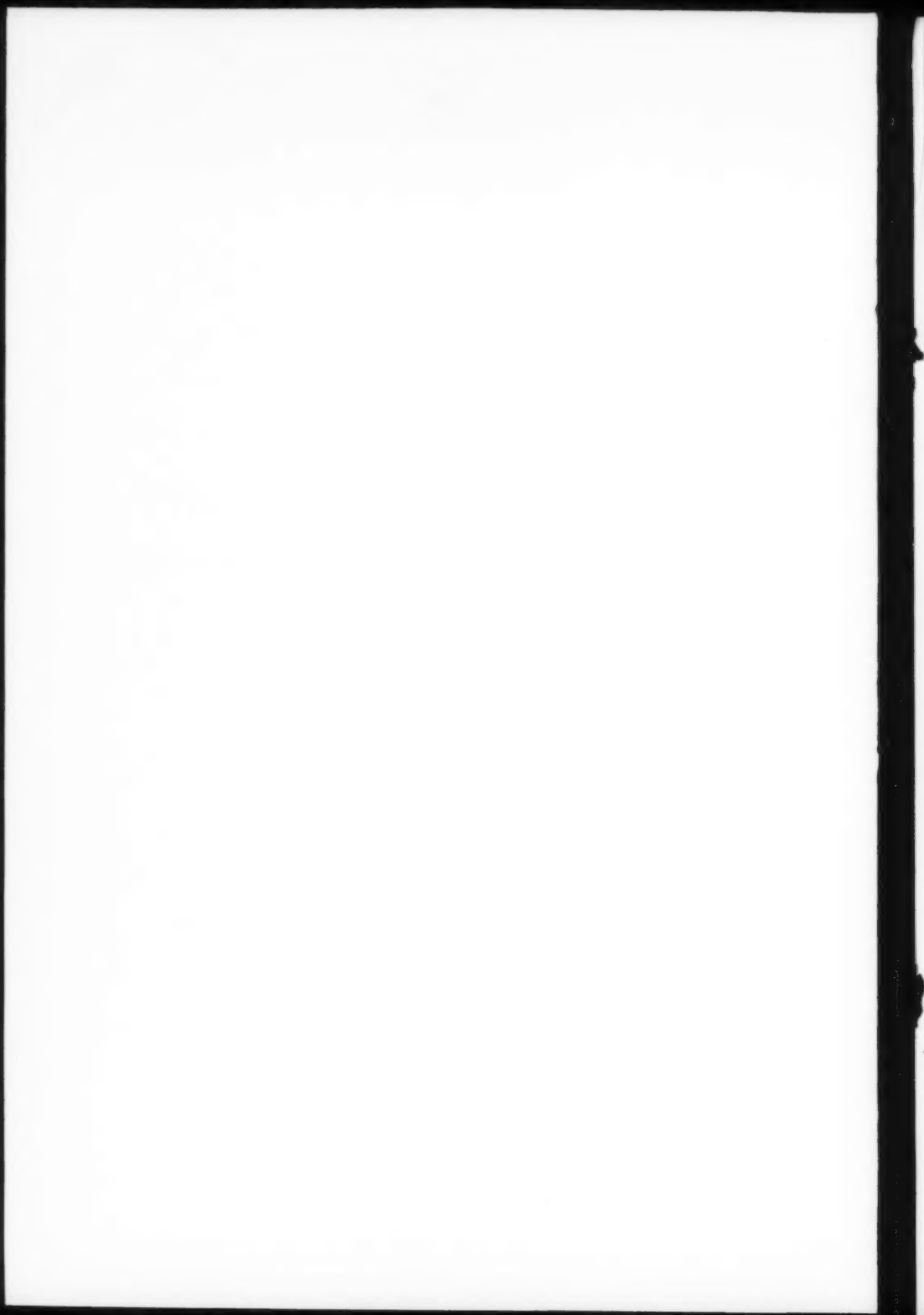
- Agostoni, P., Deffebach, M.E., Kirk, W. and Brengelmann, G.L., Temperature dependence of intraparenchymal bronchial blood flow, 257
- Ar, A., Girard, H. and Dejours, P., Oxygen consumption of the chick embryo's respiratory organ, the chorioallantoic membrane, 377
- Baier, H., *see* Bergey, M., 63
- Beamish, S., *see* Jeyaranjan, R., 203
- Bergey, M. and Baler, H., Lung mechanical properties in the West Indian Manatee (*Trichechus manatus*), 63
- Bohn, B., *see* Girard, F., 227
- Böning, D., *see* Schmidt, W., 215
- Bonora, M. and Gautier, H., Maturation changes in body temperature and ventilation during hypoxia in kittens, 359
- Bradley, M.E., *see* Clarke, J.R., 121
- Braumann, K.M., *see* Schmidt, W., 215
- Brengelmann, G.L., *see* Agostoni, P., 257
- Buttress, J.A., *see* Harding, R., 177
- Caddy, D.J., *see* Harding, R., 177
- Clarke, J.R., Homer, L.D., Flynn, E.T. and Bradley, M.E., Tracheal pressure and impedance as determinants of gas exchange during high frequency ventilation, 121
- Coleridge, H.M., *see* Yu, J., 161
- Coleridge, J.C.G., *see* Yu, J., 161
- Crance, J.-P., *see* Marchal, F., 311
- Davis, C. and Kannan, M.S., Sympathetic innervation of human tracheal and bronchial smooth muscle, 53
- De Troyer, A., *see* Farkas, G.A., 301
- Deffebach, M.E., *see* Agostoni, P., 257
- Dejours, P., *see* Ar, A., 377
- Dodd, G.A.A. and Milsom, W.K., Effects of H^+ versus CO_2 on ventilation in the Pekin duck, 189
- Duffin, J., *see* Jeyaranjan, R., 203
- Farhi, L.E., *see* Scotto, P., 251
- Faridy, E.E., Air opening pressure in fetal lungs, 293
- Faridy, E.E., Air opening pressure in fluid-filled lungs, 279
- Faridy, E.E. and Thüveris, J.A., Rate of secretion of lung surfactant before and after birth, 269
- Farkas, G.A. and De Troyer, A., The ventral rib cage muscles in the dog: contractile properties and operating lengths, 301
- Flynn, E.T., *see* Clarke, J.R., 121
- Fordyce, W.E. and Whetstone, R.M., Characteristics of a simple measure of respiratory impedance, 145
- Gallagher, C.G. and Younes, M., Closing volume after inspiratory resistive loading to fatigue, 137
- Guatier, H., *see* Bonora, M., 359
- Girard, F., Kister, J., Bohn, B. and Poyart, C., Functional properties of hemoglobin in human red cells. I. Oxygen equilibrium curves and DPG binding, 227
- Girard, H., *see* Ar, A., 377
- Goode, R., *see* Jeyaranjan, R., 203
- Guz, A., *see* Shea, S.A., 331
- Guz, A., *see* Shea, S.A., 345
- Hallemons, R., *see* Mélot, C., 11
- Harding, R., Buttress, J.A., Caddy, D.J. and Wood, G.A., Respiratory and upper airway responses to nasal obstruction in wake lambs and ewes, 177
- Henquin, J.C., *see* Kalenga, M., 29
- Homer, L.D., *see* Clarke, J.R., 121
- Ichinose, Y., *see* Scotto, P., 1
- Jeyaranjan, R., Goode, R., Beamish, S. and Duffin, J., The contribution of peripheral chemoreceptors to ventilation during heavy exercise, 203
- Johansen, K., *see* Thomas, S., 85

- Kalenga, M. and Henquin, J. C., Alteration of lung mechanics by protein-calorie malnutrition in weaned rats, 29
- Kannan, M. S., *see* Davis, C., 53
- Kirk, W., *see* Agostoni, P., 257
- Kister, J., *see* Girard, F., 227
- Kobayashi, T., *see* Toyofuku, T., 239
- Kubo, K., *see* Toyofuku, T., 239
- Lai, Y.-L., Calcium dependency of massive *post-mortem* bronchoconstriction in guinea pig lungs, 41
- Lejeune, P., *see* Mélot, C., 11
- Loeppky, J. A., *see* Scotto, P., 251
- Lykkeboe, G., *see* Thomas, S., 85
- Maina, J. N., Morphometrics of the avian lung. 4. The structural design of the charadriiform lung, 99
- Manohar, M., Regional distribution of brain blood flow during maximal exertion in splenectomized ponies, 77
- Marchal, F. and Crance, J.-P., Measurement of ventilatory system compliance in infants and young children, 311
- Mélot, C., Nacije, R., Halleman, R., Lejeune, P. and Mols, P., Hypoxic pulmonary vasoconstriction and pulmonary gas exchange in normal man, 11
- Meyer, M., *see* Scotto, P., 1
- Milsom, W. K., *see* Dodd, G. A. A., 189
- Mitchell, G. S. and Vidruk, E. H., Effects of hypercapnia on phrenic and stretch receptor responses to lung inflation, 319
- Mols, P., *see* Mélot, C., 11
- Murphy, K., *see* Shea, S. A., 331
- Murphy, K., *see* Shea, S. A., 345
- Nacije, R., *see* Mélot, C., 11
- Patane, L., *see* Scotto, P., 1
- Pelley, C., *see* Shea, S. A., 345
- Piiper, J., *see* Scotto, P., 1
- Piiper, J., *see* Scotto, P., 251
- Poupin, J., *see* Thomas, S., 85
- Poyart, C., *see* Girard, F., 227
- Rahn, H., *see* Rokitka, M. A., 371
- Rokitka, M. A. and Rahn, H., Regional differences in shell conductance and pore density of avian eggs, 371
- Schmidt, W., Böning, D. and Braumann, K. M., Red cell age effects on metabolism and oxygen affinity in humans, 215
- Scotto, P., Ichinose, Y., Patane, L., Meyer, M. and Piiper, J., Alveolar-capillary diffusion of oxygen in dogs exercising in hypoxia, 1
- Scotto, P., Loeppky, J. A., Piiper, J. and Farhi, L. E., Acid-base status immediately following rapid changes of alveolar gas composition in awake dogs, 251
- Shea, S. A., Walter, J., Murphy, K. and Guz, A., Evidence for individuality of breathing patterns in resting healthy man, 331
- Shea, S. A., Walter, J., Pelley, C., Murphy, K. and Guz, A., The effect of visual and auditory stimuli upon resting ventilation in man, 345
- Thliveris, J. A., *see* Faridy, E. E., 269
- Thomas, S., Poupin, J., Lykkeboe, G. and Johansen, K., Effects of graded exercise on blood gas tensions and acid-base characteristics of rainbow trout, 85
- Toyofuku, T., Kubo, K. and Kobayashi, T., The effect of dextran solution on pulmonary plasma-lymph barrier in awake sheep, 239
- Vidruk, E. H., *see* Mitchell, G. S., 319
- Walter, J., *see* Shea, S. A., 331
- Walter, J., *see* Shea, S. A., 345
- Whetstone, R. M., *see* Fordyce, W. E., 145
- Wood, G. A., *see* Harding, R., 177
- Younes, M., *see* Gallagher, C. G., 137
- Yu, J., Coleridge, J. C. G. and Coleridge, H. M., Influence of lung stiffness on rapidly adapting receptors in rabbits and cats, 161

SUBJECT INDEX

- Acid-base balance, 87, 251
- Aging, 43, 215
- Air cell, 371
- Airway
 - heat exchange, 259
- Airway receptors, 55
- Airway resistance, 65, 145
- Airway smooth muscle, 45, 55, 319
- Alveolar-arterial P_{O_2} difference, 1
- Alveolar gas
 - composition, 13, 251
- Animals
 - cat, 161, 359
 - chicken, 371, 377
 - dog, 1, 123, 251, 259, 301, 319
 - duck, 189, 371
 - goose, 371
 - guinea-pig, 43
 - horse, 79
 - humans, 13, 55, 137, 203, 215, 227, 331, 345
 - infants, 311
 - Larus*, 101
 - manatee, 65
 - rabbit, 161
 - rat, 31, 269, 279, 293
 - sheep, 177, 239
 - trout, 87
- Apnea
 - diving -, 101
- Autonomic nervous system, 5
- Beta-receptor, 55
- Bicarbonate
 - in blood, 251
- Birds
 - respiration in -, 371, 377
- Birth
 - respiration at -, 269, 279, 293
- Blood flow, 259
 - cerebral -, 79
 - pulmonary - distribution, 13
- Blood gas
 - Bohr effect, 215
 - 2,3-diphosphoglycerate, 215, 227
 - oxygen dissociation curve, 215, 227
- Bohr effect, 1
- Brain, 79
- Breathing pattern, 331
- Breuer-Hering reflexes, 311
- Bronchomotricity, 43, 55, 319
- Calcium, 43
- Carbon dioxide
 - ventilatory response to -, 189, 319
- Cardiac output, 239
- Catecholamines, 55
- Cerebral blood flow, 79
- Chemoreceptors
 - arterial -, 203
- Chest wall
 - mechanics, 301
- Chorioallantois, 377
- Closing volume, 137
- Compliance
 - lung -, 31, 65, 145, 161, 279, 293, 311
- Conductance, 371
- Control of breathing, 161, 189, 311, 319, 331, 345
 - Breuer-Hering reflexes, 311
 - carbon dioxide
 - ventilatory response to -, 189, 319
 - oxygen
 - ventilatory response to -, 359
- Diaphragm, 137, 177
- Diphosphoglycerate, 215
- Diving birds, 101
- Diving mammals, 65
- Donnan equilibrium, 215
- Edema, 137
- Egg shell, 371
- Electromyogram, 137
- Erythrocyte, *see* Red cell
- Exercise, muscular, 1, 79, 87
 - lactate, 87, 203

- Fatigue, 137
Fetus, 269, 293
Frequency of breathing, *see* Breathing pattern
- Growth, 31, 359
- Hemoglobin, 215
Hering-Breuer reflexes, 31
High-frequency ventilation, 123
Hill coefficient, 215, 227
Hypercapnia, 189, 319
Hypoxia, 1, 13, 177, 359
 arterial - and chemoreceptors, 203
- Incubation of egg, 371, 377
- Lactate
 blood, 87, 203
- Lung
 compliance, 31, 65, 145, 161, 279, 293, 311
 diffusing capacity, 1, 101
 mechanoreceptors, 161
 surfactant, 31, 269, 279, 293
 volume, 65, 311
 wash-out, 123, 137
- Lymph, 239
- Mechanics of breathing
 airway resistance, 65, 145
 compliance, 31
 diaphragm, 137
 pulmonary compliance, 31, 65, 145, 161, 279, 293, 311
 surfactant, 31, 269, 279, 293
- Models
 - in respiratory physiology, 145
- Morphometry, 101
- Muscular exercise, *see* Exercise, muscular
- Nitrogen
 - wash-out, 123, 137
- Nostril, 177
- Opening pressure, 279, 293
- Oxygen, *see* Blood gas and Hypoxia
 ventilatory response to -, 359
- Oxygen consumption, 1, 377
- Oxygen dissociation curve, 215, 227
- Phrenic nerve, 319
- Pulmonary circulation, 13
 pulmonary capillary flow, 239
 pulmonary capillary volume, 101
- Pulmonary diffusing capacity, 1, 101
- Pulmonary morphometry, 101
- Pulmonary receptors, 161
- Red cell phosphate, 215, 227
- Regulation of respiration, *see* Control of breathing
- Respiratory frequency, *see* Breathing pattern
- Respiratory muscles, 301
 - of Breuer-Hering, 311
- Respiratory stimuli
 carbon dioxide (hypercapnic drive), 189, 319
 oxygen drive, 359
 see also Control of breathing
- Shunt, 377
- Stretch receptors, 319
- Surfactant, 31, 269, 279, 293
- Temperature, 359
- Tidal volume, *see* Breathing pattern and Lung, volume
- Vagal afferents, 161
- Ventilation/perfusion ratio, 13
- Ventilatory response to hypercapnia, 189, 319
- Ventilatory response to hypoxia, 359



CONTENTS OF VOLUME 68

No. 1, April 1987

P. SCOTTO, Y. ICHINOSE, L. PATANÉ, M. MEYER and J. PIIPER (F.R.G.): Alveolar-capillary diffusion of oxygen in dogs exercising in hypoxia (RSP 01263)	1
C. MÉLOT, R. NAEJE, R. HALLEMANS, P. LEJEUNE and P. MOLS (Belgium): Hypoxic pulmonary vasoconstriction and pulmonary gas exchange in normal man (RSP 01264)	11
M. KALENGA and J.C. HENQUIN (Belgium): Alteration of lung mechanics by protein-calorie malnutrition in weaned rats (RSP 01259)	29
Y.-L. LAI (U.S.A.): Calcium dependency of massive <i>postmortem</i> bronchoconstriction in guinea pig lungs (RSP 01260)	41
C. DAVIS and M. S. KANNAN (Canada): Sympathetic innervation of human tracheal and bronchial smooth muscle (RSP 01265)	53
M. BERGEY and H. BAIER (U.S.A.): Lung mechanical properties in the West Indian Manatee (<i>Trichechus manatus</i>) (RSP 01266)	63
M. MANOHAR (U.S.A.): Regional distribution of brain blood flow during maximal exertion in splenectomized ponies (RSP 01261)	77
S. THOMAS, J. POUPIN, G. LYKKEBOE and K. JOHANSEN (France and Denmark): Effects of graded exercise on blood gas tensions and acid-base characteristics of rainbow trout (RSP 01262)	85
J. N. MAINA (Kenya): Morphometrics of the avian lung. 4. The structural design of the charadriiform lung (RSP 01256)	99
J. R. CLARKE, L. D. HOMER, E. T. FLYNN and M. E. BRADLEY (U.S.A.): Tracheal pressure and impedance as determinants of gas exchange during high frequency ventilation (RSP 01267)	121

No. 2, May 1987

C. G. GALLAGHER and M. YOUNES (Canada): Closing volume after inspiratory resistive loading to fatigue (RSP 01271)	137
W. E. FORDYCE and R. M. WHETSTONE (U.S.A.): Characteristics of a simple measure of respiratory impedance (RSP 01272)	145
J. YU, J. C. G. COLERIDGE and H. M. COLERIDGE (U.S.A.): Influence of lung stiffness on rapidly adapting receptors in rabbits and cats (RSP 01276)	161
R. HARDING, J. A. BUTTRESS, D. J. CADDY and G. A. WOOD (Australia): Respiratory and upper airway responses to nasal obstruction in awake lambs and ewes (RSP 01268)	177
G. A. A. DODD and W. K. MILSOM (Canada): Effects of H^+ versus CO_2 on ventilation in the Pekin duck (RSP 01270)	189
R. JEYARANJAN, R. GOODE, S. BEAMISH and J. DUFFIN (Canada): The contribution of peripheral chemoreceptors to ventilation during heavy exercise (RSP 01274)	203
W. SCHMIDT, D. BÖNING and K. M. BRAUMANN (F.R.G.): Red cell age effects on metabolism and oxygen affinity in humans (RSP 01269)	215
F. GIRARD, J. KISTER, B. BOHN and C. POYART (France): Functional properties of hemoglobin in human red cells. I. Oxygen equilibrium curves and DPG binding (RSP 01277)	227
T. TOYOFUKU, K. KUBO and T. KOBAYASHI (Japan): The effect of dextran solution on pulmonary plasma-lymph barrier in awake sheep (RSP 01273)	239

- P. SCOTTO, J.A. LOEPPKY, J. PIPHER and L.E. FARHI (F.R.G.): Acid-base status immediately following rapid changes of alveolar gas composition in awake dogs (RSP 01275) 251

No. 3, June 1987

- P. AGOSTONI, M.E. DEFFEBACH, W. KIRK and G.L. BRENGELMANN (U.S.A.): Temperature dependence of intraparenchymal bronchial blood flow (RSP 01288) 257
- E.E. FARIDY and J.A. THLIVERIS (Canada): Rate of secretion of lung surfactant before and after birth (RSP 01278) 269
- E.E. FARIDY (Canada): Air opening pressure in fluid-filled lungs (RSP 01279) 279
- E.E. FARIDY (Canada): Air opening pressure in fetal lungs (RSP 01280) 293
- G.A. FARKAS and A. DE TROYER (U.S.A. and Belgium): The ventral rib cage muscles in the dog: contractile properties and operating lengths (RSP 01281) 301
- F. MARCHAL and J.-P. CRANCE (France): Measurement of ventilatory system compliance in infants and young children (RSP 01284) 311
- G.S. MITCHELL and E.H. VIDRUK (U.S.A.): Effects of hypercapnia on phrenic and stretch receptor responses to lung inflation (RSP 01285) 319
- S.A. SHEA, J. WALTER, K. MURPHY and A. GUZ (U.K.): Evidence for individuality of breathing patterns in resting healthy man (RSP 01286) 331
- S.A. SHEA, J. WALTER, C. PELLEY, K. MURPHY and A. GUZ (U.K.): The effect of visual and auditory stimuli upon resting ventilation in man (RSP 01287) 345
- M. BONORA and H. GAUTIER (France): Maturational changes in body temperature and ventilation during hypoxia in kittens (RSP 01291) 359
- M.A. ROKITKA and H. RAHN (U.S.A.): Regional differences in shell conductance and pore density of avian eggs (RSP 01283) 371
- A. AR, H. GIRARD and P. DEJOURS (France): Oxygen consumption of the chick embryo's respiratory organ, the chorioallantoic membrane (RSP 01282) 377

